

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/085904 A3

(51) International Patent Classification⁷:

G01S 17/46

(21) International Application Number:

PCT/GB2005/000843

(22) International Filing Date: 4 March 2005 (04.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0405014.2 5 March 2004 (05.03.2004) GB

(71) Applicant (for all designated States except US): **QINETIQ LIMITED** [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1E 6PD (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LEWIN, Andrew, Charles** [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcestershire WR14 3PS (GB). **ORCHARD, David, Arthur** [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcestershire WR14 3PS (GB). **WOODS, Simon, Christopher** [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcestershire WR14 3PS (GB).

(74) Agent: **DAVIES, Philip**; QinetiQ Limited, Intellectual Property, Cody Technology Park, Ively Road, Farnborough, Hants GU14 0LX (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CE, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

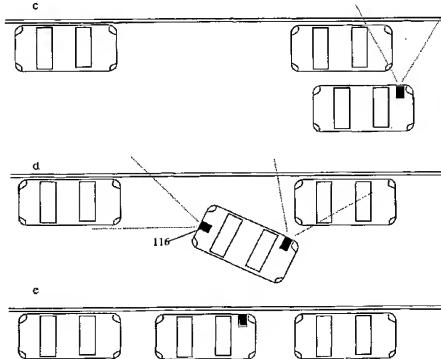
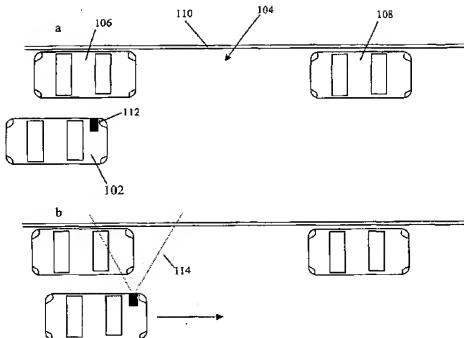
Published:

— with international search report

(88) Date of publication of the international search report: 8 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MOVEMENT CONTROL SYSTEM



WO 2005/085904 A3

(57) **Abstract:** The present invention relates to a movement control system which can be used to control moving platforms such as vehicles or robotic arms. It especially applies to a driving aid for vehicles and to a parking aid capable of self-parking a vehicle. A three-dimensional camera (12) is located on the platform, say a car (102) and arranged to view (114) the environment around the platform. A processor (7) uses the three-dimensional information to create a model of the environment which is used to generate a movement control signal. Preferably the platform moves relative to the environment and acquires a plurality of images of the environment from different positions.